## Are we able to predict insect dynamics?

**Bedreddine Ainseba** IS

Bordeaux University, France

In this work we present some ideas to predict insect dynamics. The classical methods are based on thermic models but do not include endogenous variables. We will present physiological age structured models that include the temperature dependent velocity of the insect development.

## On the usefulness of Mathematical Modeling for Vector/Pest control

**Yves Dumont** IS

CIRAD - University of Pretoria, South Africa

Because of increasing risks to health and food security, diseases vectors and pests have become a major problem in recent decades. Many innovative solutions have been developed and, eventually, tested to control and eventually eradicate these vectors/pests. However, it is more and more difficult to do a large range of field experiments (complex, costly, etc): focused experiments are needed. In addition to aggregating knowledge and/or testing the hypothesis, modeling and mathematical analysis, coupled with numerical simulations, can be very useful for experts to develop, choose and conduct field experiments more effectively. I will present some recent results obtained in the context of human health and crop protection.

# WTAEM 2019

## Workshop on Advanced Control Techniques for Mosquito-Borne Diseases

# OFFICIAL PROGRAM

## NOVEMBER
## 11th to 17th

PLACES:

- Auditorio Centro Nacional de Computación (CNC).
- Sala de Postgrado B 01, Facultad Politécnica, Campus de la UNA.
- Reserva Natural del Bosque Mbaracayu, Canindeyú.

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## PARAGUAY

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